REMARKS

Reconsideration of the present application, as amended, is respectfully requested.

A. STATUS OF THE CLAIMS

As a result of the present amendment, claims 1-2, 4-17 and 19-37 are presented in the case for continued prosecution. Claims 1 and 16 as amended include the subject matter originally recited in claims 3 and 18, respectively. Claims 3 and 18 have been cancelled without prejudice. Claims 2 and 17 have been reworded for clarity. Claims 4-7, 9, 11, 13 and 17 now depend from claim 1 and claims 19-22, 24, 26 and 28 now depend from claim 16. Nearly all claims have also been amended to conform to the above-noted amendments and to conform to U.S. language and practice, as appropriate. No new matter has been added.

B. RESTRICTION REQUIREMENT

The Examiner has acknowledged that claims 1-6, 15-22 and 30-33 link(s) inventions I and II." The Restriction requirement is thus provisional, in that it will not apply unless the linking claims are not found to be allowable.

The provisional restriction requirement is as follows.

Group I, directed to claims 7-14, drawn to the DNA vaccine wherein the first plasmid contains a base sequence represented by SEQ ID NO: 50 (wherein the plasmid is KCCM 104 15), second plasmid is represented by SEQ ID NO: 5 1 (KCCM 104 17) and the third plasmid is represented by SEQ ID NO: 52 (KCCM 104 16).

Group II, directed to claims 23-29, drawn to the recombinant adenovirus vaccine wherein the first plasmid contains a base sequence represented by SEQ ID NO: 50 (wherein the adenovirus is KCCM 1041 8), second adenovirus contains a base sequence represented by SEQ ID NO: 54 (KCCM 10420), and the third adenovirus contains a base sequence represented by SEQ ID NO: 52 (KCCM 104 19).

Group III, directed to claims 34-37, drawn to a method to enhance the protective immunity to HCV and the method for the prevention and treatment of HCV.

In response to the Restriction requirement, and subject to the nonallowability of the noted linking claims, Applicants elect to prosecute in this patent application Group I, claims 7-14, drawn to the DNA vaccine wherein the first plasmid contains a base sequence represented by

SEQ ID NO: 50 (wherein the plasmid is KCCM 10415), the second plasmid is represented by SEQ ID NO: 51 (KCCM 10417) and the third plasmid is represented by SEQ ID NO: 52 (KCCM 10416).

This response is made with traverse, and it is urged that the claims contained in all of Groups I-III be examined together. Reconsideration is respectfully requested.

The Examiner has indicated that the inventions listed in Groups I, II, III do not relate to a single general inventive concept under PCT Rule 13.1. The Examiner has taken the position that Groups I-III lack the same or corresponding special technical features, in view of the description provided by Saito et al. (US Patent No. 5,731,172).

According to the Examiner, Saito et al. discloses a recombinant adenovirus construct encoding an HCV antigen. See page 2, last paragraph of the Restriction Requirement. However, Saito et al. is silent as to the vaccines as claimed herein, which include three individual adenoviruses (or three plasmids) each containing a structural protein domain (Core-E1-E2), a non-structural protein domain (NS3-NS4) and a non-structural protein domain (NS5). See page 16, lines 10-18. The length of each of the inserted HCV antigen genes in the DNA vaccine for "priming" and adenovirus vaccine for "boosting" is an important aspect of the claimed invention. See page 14, line 21 through page 15, line 13. The vaccines claimed herein induce cellular immune response and provide the protective immunity against acute phase of HCV infection in chimpanzees. See page 32, line 10 through page 34, line 11. See also Examples 12-16. Accordingly, the claimed invention is distinguishable over Saito et al. and Saito et al does not destroy the single inventive step requirement.

Additionally, some of other common technical features of the vaccines including three individual plasmids (or adenoviruses) are, for example, increased expression efficiency and stability of the recombinant constructs. See page 15, line 13 through page 16, line 18 of the specification.

The vaccines of Groups I and II are necessarily used by the methods of the non-elected Group III. As such, it is respectfully urged that the search directed to the invention of the elected Group I will overlap a search strategy directed to the invention of the non-elected Groups II and III. Accordingly, Applicants urge that there would not be an undue burden upon the Examiner to search and consider Groups I, II, and III at the same time.

In addition, the Examiner has the discretion to prosecute all of the pending claims in a

single patent application. In fact, "[I]f the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions." (Emphasis added; Manual of Patent Examining Procedure, § 803, second paragraph).

Thus, for reasons set forth above, the Examiner is respectfully requested to reconsider and withdraw the restriction requirement.

B. REJOINDER

Applicants reserve the right to request rejoinder of all appropriate claims removed by the Examiner in the event that the traversal is not found to be persuasive.

C. FEES

This response is being filed with a petition for a one-month extension of time and required fee via credit card authorization. No further fee is believed to be due. If it is determined that any further fees are due or any overpayment has been made, the Assistant Commissioner is hereby authorized to debit or credit such sum to deposit account 02-2275. Pursuant to 37 C.F.R. 1.136(a)(3), please treat this and any concurrent or future reply in this application that requires a petition for an extension of time for its timely submission as incorporating a petition for extension of time for the appropriate length of time. The fee associated therewith is to be charged to Deposit Account No. 02-2275.

An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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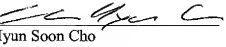

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